

Short Form Application Specification for Eclipse® Pavement Sealer

Note for specifiers:

The following short form specification provides language for proper completion of sealcoating work. It is designed for use within a comprehensive pavement maintenance specification which also includes sections for pavement repair, crack sealing and pavement marking. Language for these scopes of work are available on request. All documents are available in Word format on request.

1. Materials

1.1 Pavement Sealer

- 1.1.1 Pavement sealer shall be Eclipse® as manufactured by the Brewer Company. The pavement sealer shall be a petroleum pitch emulsion prepared from high temperature refined petroleum pitch. The pavement sealer shall be produced with a continuous process colloid mill and meet or exceed all performance requirements of ASTM D5727. The pavement sealer shall have a non-volatile content of no less than 48.50% and ash of non-volatile shall be no less than 36.00 and no greater than 37.00% as supplied.
- 1.1.2 If requested, the contractor will provide manufacturers certification indicating compliance with the above requirements for all pavement sealer supplied for work governed by this specification.

1.2 Water

- 1.2.1 The water used for mixing shall be potable and free of harmful soluble salts and contaminants.

1.3 Additive

- 1.3.1 The use of an additive will improve the sealer's durability, gasoline and oil resistance, drying time, color uniformity and aggregate suspension.
- 1.3.2 Approved additives are E.L.A.™ (Enhanced Latex Additive) or Rapid Dry™ as manufactured by The Brewer Company. Use of any other additive must be approved prior to commencement of work.

1.4 Aggregate

- 1.4.1 The use of aggregate will improve the sealer's wear and skid resistance.
- 1.4.2 The aggregate shall be either natural or manufactured angular aggregate.
- 1.4.3 The aggregate shall be washed and graded silica sand or boiler slag free of dust, clay, organic materials or other contaminants.
- 1.4.4 The aggregate shall be of medium grain fineness (AFS 50-70) and meet the following individual gradations and ranges, when tested in accordance with ASTM C136:

Sieve Size	% Retained
No.30	0-5
No.40	0-10
No. 50	10-30
No.70	15-100
No. 100	0-35
No. 140	0-25
No. 200	0-10

- 1.4.4.1 Aggregate with gradations outside of these ranges must be pre-approved for use.

2. Equipment

- 2.1 Application equipment used to apply the pavement sealer shall be tank type, with a mechanically powered full sweep agitation system capable of homogenously mixing the entire contents of the tank. The equipment shall be capable of applying the recommended coating rates evenly over the entire width of the application mechanism to provide a uniformly coated surface.

- 2.2 Application by hand squeegee or brush should be restricted to areas not accessible to mechanized equipment or to accommodate neat trim work at curbs, parking stops, etc. Sealer applied by hand shall meet the same standards as sealer applied by machine.

3. Surface Preparation

- 3.1 All repairs, patching and crackfilling must be complete prior to application of pavement sealer.
 - 3.1.1 Newly paved areas and asphalt patches must cure a minimum of 60 days prior to sealer application.
- 3.2 All oil and grease that has not penetrated the pavement surface shall be removed by scraping or burning and scrubbing the affected area with a detergent solution or treating with an oil spot primer.
- 3.3 The pavement surface shall be thoroughly cleaned immediately prior to sealer application by sweeping, blowing, scrubbing and/or flushing the area with clean water to remove all debris that may restrict sealer adhesion.
 - 3.3.1 All standing water shall be removed from the pavement prior to sealing.

*Note for specifiers:
Certain conditions such as old, oxidized pavement, excessive tree sap or heavily stained pavement may benefit from use of a primer. Please consult detailed application specifications or contact us for specific recommendations.*

4. Mix Designs

- 4.1 The mix designs are based on using a sealer with non-volatile content of 48.50 percent minimum.
- 4.2 The petroleum pitch emulsion system shall consist of a mixture of petroleum pitch emulsion, water, additive and aggregate, and shall be proportioned as follows:

Pavement Sealer - Gallons	100
Water - Gallons	*
Additive - Gallons	*
Aggregate - Pounds	*

**Quantities for water, additive and aggregate per 100 gallons of sealer should be determined for specific traffic patterns from product technical data or detailed application specifications and added to the table above*

5. Application

- 5.1 Application shall be made using spray or mechanical squeegee equipment as detailed above, plastic or nylon bristled brushes or rubber squeegees designed for this purpose.
- 5.2 The sealer shall be uniformly applied over the entire asphalt surface and be free of voids.
- 5.3 Coverage rates are based on the mix design detailed in this specification and are as follows:
 - 1st coat 0.10 gal/yd² – 0.15 gal/yd²
 - 2nd coat 0.08 gal/yd² – 0.12 gal/yd²
 - 3rd coat 0.08 gal/yd² – 0.12 gal/yd²
- 5.4 Before applying the next coat of sealer, the previous coat shall be allowed to thoroughly dry so that it will withstand traffic without scuffing.
- 5.5 It is recommended that the final coat of sealer be allowed to cure for at least twenty-four (24) hours under ideal conditions (70° F minimum and 50% relative humidity), then tested for trafficability before opening the pavement to regular use.